



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/589,145	08/11/2006	Wolfgang Thiel	TM029	5793
52203 7590 08/23/2007 CONTINENTAL TEVES, INC. ONE CONTINENTAL DRIVE AUBURN HILLLS, MI 48326-1581			EXAMINER VU, HIEN D	
			ART UNIT 2833	PAPER NUMBER
			MAIL DATE 08/23/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/589,145

Applicant(s)

THIEL ET AL.

Examiner

Hien D. Vu

Art Unit

2833

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-14 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 8-14 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

1. 35 U.S.C. 112, first paragraph, requires the specification to be written in "full, clear, concise, and exact terms." The specification is replete with terms which are not clear, concise and exact. The specification should be revised carefully in order to comply with 35 U.S.C. 112, first paragraph. Examples of some unclear, inexact or verbose terms used in the specification are: on page 2, section (0003); page 5, section (0013); page 6, sections (0015) and (0016) are confusing. Applicant is required to review the entire disclosure and make corrections where necessary.
2. The claims 8-14 are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors. For example, in claim 8, the third and fourth paragraphs "at least one non-metallized ... of the conductor track" and claim 14 features are confusing and unclear; claims 9-13 are not understood what are being claimed.
3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
4. Claims 8-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clark et al (4017142) in view of Jones (6338632).

Insofar as the claims can be understood, Clark, Figs. 8-13 shows an electric sub-assembly having a non-plated printed circuit board 62 with electric conductor tracks 64

Art Unit: 2833

on the lower and upper side, the sub-assembly comprising: at least one electrically conductive contact pin 10 for providing an electric connection between two or more conductor tracks on an upper and lower side by at least one electrically conductive contact pin, at least one non-metallized opening 60, the opening of the printed circuit board has predetermined dimensions and forming a press connection with the contact pin having a first partial length in relation to dimensions of the opening, and having a second partial length that is smaller than a depth of the opening of the printed circuit board, so that after being inserted at least one part of the second partial length remains in the opening, and the length of the contact pin is greater than the depth of the opening so that the contact pin once pressed into the hole passes through the printed circuit board and projects beyond the hole and two or more contact zones are provided around the opening on the upper and lower side of the printed circuit board, the contact zones form an edge corresponding to the dimensions of the opening so that the contact pin is pressed into the hole on the face of the contact zone of the conductor track, and the contact pin (1) on the opposite direction is electrically connected by flow soldering to the contact zone. Clark does not clearly show or disclose the first partial length of the pin being larger than the opening of the board. Jones, Figs. 5-6 show a first partial length of the pin 1 being larger than an opening of the board 2. It would have been obvious to one with skill in the art to modify the connector of Clark by forming the first partial length of the pin to be larger than the opening of the board, as taught by Jones, in order to insure the pin being secured in the printed circuit board.

As to claim 9, Clark shows a second sub-section of the pin being tapered.

As to claim 10, Clark shows the contact pin being formed in massive manner.

As to claim 11, to form the printed circuit board with material to be made of CEM- or FR4-material would have been obvious to one with skill in the art to select the desired material for achieving the better result.

As to claim 12, Clark shows a stop that defines the length.

As to claim 13, Clark shows the upper side of the printed circuit board having a gas-tight and solder-free press connection is between the contact pin and the contact zone.

As to claim 14, Clark shows the opening being punched in the printed circuit board.

5. Blossfeld, Lazar, Kruppa et al, Fushimi, Gladd et al, and Takenaka et al are cited for disclosure of contact pin in the circuit boards.

6. Any inquiry concerning this communication should be directed to Hien D. Vu at telephone number 571-272-2016.

HV

8/19/07



HIEN VU
PRIMARY EXAMINER